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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,331	01/22/2004	Pen-Jung Lee	BHT-3244-24	2696
7590 07/27/2004				
TROXELL LAW OFFICE PLLC				
SUITE 1404				
5205 LEESBURG PIKE				
FALLS CHURCH, VA 22041				
		EXAMINER		
		THOMAS, BRANDI N		
		ART UNIT		
		2873		
		PAPER NUMBER		

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,331

Applicant(s)

LEE, PEN-JUNG

Examiner

Brandi N Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Freyhold et al. (6594092 B2).

Regarding claim 1, von Freyhold et al. discloses, in figures 2-4, a flat type light condensing device arranged in an optical path device of an image readout device, comprising: a hollow frame (1); and a plurality of lenses (12 and 15) arranged in said frame (1) but does not specifically disclose the hollow frame having rectangular openings at two ends. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include an opening at both ends of the frame for the purpose of permitting light to enter and exit the frame. Regarding claim 3, von Freyhold et al. further discloses wherein said lenses (12 and 15) are circular (figure 1).

Regarding claim 2, von Freyhold et al. discloses the plurality of lenses are locked in said frame (col. 3, lines 28-34) but does not specifically disclose that the lenses are rectangular. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use rectangular lenses for the purpose of using lenses similarly shaped to the frame in which they are mounted in for better capability of locking the lenses in their

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preferred positions. von Freyhold et al. also does not specifically disclose the frame integrally formed of plastic, metal, or ceramic material. It would have been obvious to manufacture the frame of plastic, metal, or ceramic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the frame of plastic, metal, or ceramic material for the purpose of durability.

Regarding claim 4, von Freyhold et al. discloses, in figures 2-4, a flat type light condensing device arranged in an optical path device of an image readout device, wherein said frame comprises a plurality of rectangular sub-frames (40-45) and lock portions (3 and 46) are formed at two ends of each of said sub-frames to connect them together does not specifically disclose the frame integrally formed of plastic, metal, or ceramic material. It would have been obvious to manufacture the frame of plastic, metal, or ceramic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the frame of plastic, metal, or ceramic material for the purpose of durability.

Regarding claim 5, von Freyhold et al. discloses, in figures 2-4, a flat type light condensing device, wherein said lenses are rectangular ones (12 and 15), and are formed in corresponding sub-frames (40-45) so that they won't be easily affected by temperature to deform but does not specifically disclose the lenses formed of plastic material and the frame made of metal or ceramic material. It would have been obvious to one having ordinary skill in the art at

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the time the invention was made to make the lenses out of plastic for stability. It would have been obvious to manufacture the frame of plastic, metal, or ceramic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the frame of plastic, metal, or ceramic material for the purpose of durability.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Freyhold et al. (6594092 B2) as applied to claim 1 above, and further in view of Yui (US 2002/0167689 A1).

Regarding claim 6, von Freyhold et al. discloses the claimed invention except that it does not show a light incidence piece, a light condensing piece set and a light splitting piece, said light incidence piece has a size corresponding to the scan size of a scanner, said light escape piece has a size corresponding to that of a charge coupled device, and said light condensing piece set is composed of more than one lens. Yui shows that it is known to provide a light incidence piece (24), a light condensing piece set (27) and a light splitting piece (section 0044), said light escape piece has a size corresponding to that of a charge coupled device (section 0028), and said light condensing piece set is composed of more than one lens (27a and 27b) for reflecting the image light from a plurality of reflecting means, for condensing the image light from the reflecting mirror to form the image, and to read the image light from the document (section 0025).

Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the device of von Freyhold et al. with a light incidence piece, a

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light condensing piece, and a light splitting piece of Yui for the purpose of reflecting the image light from a plurality of reflecting means, for condensing the image light from the reflecting mirror to form the image, and to read the image light from the document (section 0025).

However, von Freyhold et al. and Yui do not specifically disclose the light incidence piece has a size corresponding to the scan size of a scanner. It would be obvious to include a light incidence piece having a size corresponding to the scan size of a scanner, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art (*In re Rose*, 105 USPQ 237 (CCPA 1955)). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the size of the light incidence piece to comfortably fit into the frame of the image reading unit.

Regarding claim 7, Yui discloses a flat type light condensing device, in figure 1, wherein a charge coupled device is assembled in said frame (section 0028).

4. Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui (US 2002/0167689 A1) in view of von Freyhold et al. (6594092 B2).

Regarding claim 8, Yui discloses an optical path device, in figure 1, mainly arranged in an optical equipment, said optical path device comprising: a light source device (6) providing the required light; a reflecting device (24) comprising at least a reflecting mirror, each said reflecting mirror (20-24) reflecting said light at least once to accomplish a predetermined total track; a light condensing device (27) receiving light reflected by said reflecting device and condensing it for imaging (section 0025); and an OE converter receiving light collected and imaged by said light

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condensing device and converting it into an electric signal (section 0028) except that it does not show the light condensing device comprising a hollow frame whose two ends have rectangular openings and a plurality of lenses arranged in said frame. Von Freyhold et al. shows that it is known to provide an said light condensing device comprising a hollow frame (1); and a plurality of lenses (12 and 15) arranged in said frame (1) but does not specifically disclose the hollow frame having rectangular openings at two ends. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include an opening at both ends of the frame for the purpose of permitting light to enter and exit the frame. Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the device of Yui with the light condensing device of von Freyhold et al. for the purpose of for condensing the image light from the reflecting mirror to form the image (section 0025). Regarding claim 12, von Freyhold et al. further discloses wherein said lenses (12 and 15) are circular (figure 1).

Regarding claim 9, Yui discloses an optical path device, in figure 1, wherein said OE converter is arranged in the distal end of said frame of said light condensing device.

Regarding claim 10, von Freyhold et al. discloses the plurality of lenses are locked in said frame (col. 3, lines 28-34) but does not specifically disclose that the lenses are rectangular. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use rectangular lenses for the purpose of using lenses similarly shaped to the frame in which they are mounted in for better capability of locking the lenses in their preferred positions. von Freyhold et al. also does not specifically disclose the frame integrally formed of plastic, metal, or ceramic material. It would have been obvious to manufacture the

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frame of plastic, metal, or ceramic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the frame of plastic, metal, or ceramic material for the purpose of durability.

Regarding claim 11, von Freyhold et al. discloses, in figures 2-4, a flat type light condensing device, wherein said frame comprises a plurality of rectangular sub-frames (40-45), said lenses are rectangular ones (12 and 15), and lock portions (3 and 46) are formed at two ends of each of said sub-frames to connect them together so that they won't be easily affected by temperature to deform but does not specifically disclose the lenses formed of plastic material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lenses out of plastic for stability. It would have been obvious to manufacture the frame of plastic, metal, or ceramic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the frame of plastic, metal, or ceramic material for the purpose of durability.

Regarding claim 13, Yui discloses an optical path device, in figure 1, wherein a light incidence piece (24), a light condensing piece set (27) and a light splitting piece (section 0044), said light escape piece has a size corresponding to that of a charge coupled device (section 0028), and said light condensing piece set aspheric (27a and 27b) for reflecting the image light from a plurality of reflecting means, for condensing the image light from the reflecting mirror to

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form the image, and to read the image light from the document (section 0025). Therefore it would have been obvious to someone of ordinary skill in the art at the time the invention was made to combine the device of von Freyhold et al. with a light incidence piece, a light condensing piece, and a light splitting piece of Yui for the purpose of reflecting the image light from a plurality of reflecting means, for condensing the image light from the reflecting mirror to form the image, and to read the image light from the document (section 0025). However, von Freyhold et al. and Yui do not specifically disclose the light incidence piece has a size corresponding to the scan size of a scanner. It would be obvious to include a light incidence piece having a size corresponding to the scan size of a scanner, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art (In re Rose, 105 USPQ 237 (CCPA 1955)). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the size of the light incidence piece to comfortably fit into the frame of the image reading unit.

Regarding claim 14, Yui discloses an optical path device, in figure 1, wherein the one end of said flat type light condensing device near said reflecting device is equal to or larger than the one end of said that type light condensing device near said OE converter (section 0028).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Cappiello (6570652 B1) discloses a device for monitoring wavelength division multiplexed optical signals for use in an optical network and in an optical performance monitor.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BNT
July 22, 2004



RICKY MACK
PRIMARY EXAMINER